The line carried its first paying passengers on September 28, 1887. To attract riders, the Lake Washington Cable Railway (later Seattle City Railway) Company created Leschi Park, installed a menagerie (which was transfered to the Woodland Park Zoo in 1903) and accommodated steamer service across the Lake. When the Panic of 1893 crippled its developers' finances, the line went into receivership but it maintained service under private and municipal management until 1940.

Thompson launched Seattle's second cable railway in 1888. His Front Street Cable Railway ran north along First Avenue from Yesler to Pike where it made a loop via Second and Pine for the return leg. The following year, the line was extended south to King Street and north to Denny Way via Second Avenue. Thompson organized the North Seattle Cable Railway to conquer Queen Anne Hill's precipitous "Temperance Street" grade. His streetcars were running to West McGraw Street, then the city limits, by 1891.

The Queen Anne cable should not be confused with the famed "Counterbalance," which was constructed in 1901 to aid electric streetcars in both climbing up and inching down Queen Anne Avenue. The counterbalance was a pair of 16-ton rail trucks which ran in tunnels beneath the two streetcar tracks. These weighted cars were linked to cables to which a "hook man" connected each streetcar at the base or crest of the hill. Because the streetcar outweighed the counterbalance, the "motorman" needed only enough power to overcome a few tons of relative mass to ascend the hill with the aid of the descending truck. In the opposite direction, the truck acted as a brake. Either way, the streetcar never exceeded about 8 m.p.h. This system operated flawlessly until Seattle retired its streetcars in 1940, and many old timers still refer to Queen Anne Avenue's southern grade simply as "the Counterbalance."

The formula established by the Lake Washington Cable Railway might be expressed as "Transit + Park = Development." This arithmetic was duplicated in 1890 on Madison Street, where John McGilvra laid out Madison Park at the terminus of Thompson's Madison Street Cable Railway. Similarly, E.F. Whittler and other investors developed Madronna Park on Lake Washington to attract riders for their Union Trunk Line, which operated a cable line on James Street and linked with four electric routes serving Capitol Hill and the Central Area.

The numbers did not always add up, however. The West Seattle Land and Improvement Company instituted regular ferry service on Christmas Eve 1888 from the foot of Marion Street to Duwamish Head . The company supplemented this service in 1890 with a cable railway which

snaked like a lateral roller coaster along a two-mile loop from the ferry terminal to the present-day intersection of Ferry Avenue and 45th Avenue SW. Too few passengers mustered the courage to take this hair-raising ride, and even fewer home buyers chose to locate so far from the city center, so the cable railway was abandoned in 1897, and the West Seattle Land and Improvement Company all but folded.

When the area of West Seattle lying roughly north of Admiral incorporated as a separate city in 1902, its 1,539 residents were eager to restore some form of public transportation (it was a long, steep climb from the ferry terminal to most residences). The privately-owned Seattle Electric Company defaulted on its charter to build a new electric railway, so the yound city undertook the task itself. The first trial run was made on the new line on Christmas Day 1904 and it earned West Seattle the honor of becoming the first U.S. city to own and operate a street railway. It proved to be a short-lived distinction.

West Seattle proposed in 1906 to extend the line to Alki Point to serve the resort cottages and natatorium (a swimming complex later transformed into the Coney Island-style Luna Park) on the beach between Duwamish Head and Alki Point, but the area's residents rejected the annexation needed for this. Frustrated and facing the prospect of stiff competition from a private streetcar line planned from Seattle to the "Youngstown" community via Spokane Street, the West Seattle City Council asked voters for permission to sell its street railway to the Seattle Electric Company.

The sale was approved on October 6, 1906, and Seattle Electric's Spokane Street line opened the following year and service was quickly extended to the new Luna Park, which opened on June 27, 1907. Two days later, the citizens of West Seattle and neighboring westside communities approved annexation to Seattle by a vote of 325 to 8.

Seattle Plugs into the Electric Age

Thomas Edison's perfection of the first practical electric incandescent lamp in 1879 launched a second industrial revolution. Hundreds of inventors were soon filing patents for generators, transformers, appliances, motors and a host of other devices to produce, transmit and harness electricity. An equally ingenious army of investors and entrepreneurs sought ways to turn electricity into profit and economic power.

Edison was as sharp an businessman as he was an inventor. He commissioned agents who

spread across the nation to promote electric power and form local corporations which would in turn buy equipment from Edison. This practice was continued by General Electric and Westinghouse, and their competition for equipment contracts would underlie much of utility politics during the first half of the 20th century.

Two Edison agents, Sidney Mitchell and F. H. Sparling arrived in Seattle in 1885 and recruited investors for the city's first electric utility under a generous municipal franchise. On March 22, 1886, the Seattle Electric Light Company's steam generator powered the first incandescent lamp to shine west of the Rocky Mountains.

Electricity could do more than illuminate the darkness. Among the first to perceive its potential as "traction" power for vehicles was Francis Julian Sprague, an Annapolis-trained engineer who later assisted Edison. Sprague built and demonstrated the first electric railway in Richmond, Virginia, in 1887 and went on to develop the high-speed elevator and control systems for urban subways and street railways. Often called the "father of electric traction," Sprague had an even greater impact on our culture: by harnessing electricity to solve the problem of horizontal and vertical transportation in congested streets and soaring skyscrapers, he helped to make the modern city possible.

News of Sprague's work excited Frank Osgood, builder of Seattle's first street railway, and an enterprising local dentist, E. C. Kilbourne, who had already formed his own small utility. Kilbourne joined with L.H. Griffith, F.T. Blunk and other developers to design an electric railway along Front Street. They linked up with Osgood to form the Seattle Electric Railway and Power Company and electrify the Second Avenue line when J.M. Thompson began developing his Front Street Cable Railway.

Seattle's first electric streetcar was tested on March 30, 1889 (the year Washington gained statehood), and its first passenger was a woman, Addie Burns. The last hayburners were retired to the barn on April 5 and the system began operating exclusively under electric power. Despite a population of barely 25,000, Seattle was the first city on of the West Coast to accomplish this feat.

The public greeted the novelty of electric streetcars with some apprehension. Dire predictions were made about runaway bolts of electricity zapping bystanders or magnetizing watches, and others thought Seattle's hills would prove insurmountable to horseless trolleys. When the new cars negotiated the 11 percent grade at James Street without a hitch or a short-

circuit, doubters were silenced. The system passed an even higher test by maintaining uninterrupted operation during Seattle's "Great Fire" on June 6, 1889.

Enthusiasm for electric railways swept the city as scores of investors and entrepreneurs launched new lines with the carefree abandon of children discovering new toys trains under the Christmas tree. Motivated chiefly by real estate speculation, developers such as Guy Phinney and Harry Whitney built Woodland Park and Golden Gardens respectively and invested in street railways to lure and transport buyers to their new subdivisions.

City Hall was inundated with applications for franchises to lay streetrail hither and yon. When not succumbing to outright graft in awarding these licenses, the City Fathers were occasionally creative. In 1890 they were approached by competing cable and electric railways for the privilege of laying track from the city center to Lake Union and north to the town of Ballard. The City staged a "build-off" to see who could get there first.

The cable companies opted to zigzag along the existing street grid, but L.H. Griffith's Seattle Electric Railway had already quietly bought up properties along a diagonal line from Third and Pike to the western shore of Lake Union. When the starting gun was fired in October 1890, it took Griffith's crews just five days to reach the lake with track and start operating an electric street car. The result of their toil survives today as Westlake Avenue.

As with the cable railways, not every streetcar developer succeeded. David Denny's Rainier Power and Railway Company derailed when home buyers failed to snap up lots in the University and Ravenna Districts served by his line. The Panic of 1893 impoverished many electric railway investors, but others sprang up in their place.

Despite such losses, a system of cables, rails, trestles, counterbalances and electric wires continued to stretch out across Seattle like the filaments of a spider's wind-torn web. Street rails soon reached into the neighboring municipalities of Ballard, Fremont, Georgetown and West Seattle, and to distant "resorts" such as Green Lake. Seattle was served by 48 miles of electric railway and 22 miles of cable railway in 1892; this trackage doubled over the next decade under the management (or mismanagement) of some dozen independent and often competing firms. The mounting chaos of street railways and electric utilities cried out for a strong hand to create order.

Enter Stone & Webster

In the exploitation of Seattle's largely virgin landscape, control of water, electricity and street railways were three legs of a natural economic platform, and real estate speculation provided the fourth. Beyond the value of their timber, minerals and water supply, watersheds created opportunities for generating hydro-electricity which in turn powered street railways. Rider fares helped turn kilowatts into dollars at a time before extensive electrical consumption, and the trains supported outlying real estate development by assuring new buyers access to the city center's jobs and stores when most roads were muddy wagon trails.

Before 1900, it was not uncommon to find companies engaged in all four facets of Seattle's early development, platting new lots in the "suburbs" of, say, West Seattle and Ballard, installing water and power lines, and providing trolley service to and from downtown. There was a public benefit as well as potential profit in such "vertical" enterprises because ambitious cities like Seattle lacked the tax revenues to finance their own infrastructure. There was also great risk, as David Denny had learned.

As the 19th century came to a close, the Boston-based Stone & Webster Management Company emerged victorious out of a welter of competing utility/traction companies. Founded by two MIT graduates, Charles A. Stone and Edwin S. Webster, this company began as consulting engineers. Its technical expertise and conservative management philosophy impressed Eastern investors, and Stone & Webster was soon a colossal trust running a host of private utilities across the nation on behalf of a bewildering tangle of interlocking corporations and holding companies.

Agents of Stone & Webster studied the situation on Puget Sound in 1898 at the invitation of Sidney Mitchell. That same year, Charles Baker completed the region's first hydro-electric power plant at Snoqualmie Falls and demonstrated the vast potential waiting to be tapped. The lesson was not lost on Stone & Webster and it began assembling what would evolve into today's Puget Sound Power and Light Company.

Stone & Webster recruited Jacob Furth to organize or take over a series of local utilities, street railways and interurban lines in Western Washington. Furth was Seattle's leading Jewish citizen and founder of Puget Sound National Bank. He knew transportation as an adviser and backer of such entrepreneurs as Captain John Anderson, Joshua Green and Frank Osgood. What Judge Burke was to transcontinental railroads in Seattle, Jacob Furth became to street railways and

electric utilities. He was soon a power broker in more ways than one, and thanks to his acumen, Stone & Webster required only a few years to become, in historian Murray Morgan's phrase, "the ringmasters of private power in the Pacific Northwest."

The name of S&W's early regional holding company, Puget Sound International Railway & Power Company, proclaimed its dream of a utility and transportation empire extending from Vancouver, Washington, to Vancouver, British Columbia. This may strike modern readers as arrogant or even sinister, but at the end of the last century many citizens welcomed such economic imperialism as an essential engine of progress.

Sparks Fly Over Public Control of Street Railways

Initially, most towns, Seattle included, virtually prostrated themselves before railroads, private utilities and other sources of capital in seeking investment for their development. Lack of antitrust laws and the primitive state of frontier city politics allowed much mischief in the pursuit of manifest municipal destiny and corporate profit. As unregulated private utilities proved to be unreliable service providers (the lack of water pressure in private pipes to fight the Great Fire of 1889 graphically demonstrated this) political pressure mounted for public control and ownership.

The continuity of private city services was governed by the vagaries of revenues, capital markets and managerial diligence, all of which suffered greatly during the four-year depression created by the Panic of 1893. Seattle's fortunes did not recover until the onset of the Klondike Gold Rush in 1897. By then, some of Seattle's leading citizens were beginning to question the City's surrender of so much power to private interests, particularly as these gravitated toward monopoly control.

In 1899, S&W consolidated ownership of 22 Seattle streetcar and cable car routes under a new power and transport utility, the Seattle Electric Company (while refusing to permit free transfers between its own lines), and applied to the City of Seattle for a 40-year franchise for street railway service. Under Jacob Furth's presidency, Seattle Electric went on to secure a franchise for electric power that ran through 1952.

This outraged a civic-minded "Committee of 100" which successfully lobbied the City Council in 1900 to reduce Seattle Electric's street railway franchise to 35 years, to require free transfers, and to offer discounts for bulk ticket purchases. Stone & Webster's monopoly was

threatened more seriously in 1902 when voters passed a bond issue to build a City-owned hydro-electric plant at Cedar Falls.

Three years later the new "City Light" was supplying power for street lamps and public buildings. Tacoma voters also took similar steps to establish their own electric utility. Faced with taxpayer-financed competition, Stone & Webster howled in protest and sought legislative relief in Olympia and even Washington, D.C. to ban municipal utilities.

Meanwhile, Seattle Electric achieved control of virtually every streetcar line in Seattle by 1902, a total of almost 100 milles of track. Despite early investments in substantial improvements which doubled the trackage by 1915, the Seattle Electric Company allowed its street railway services to deteriorate into a daily irritation for citizens. Historian Richard C. Berner notes that Seattle Electric's operations were plagued by "overcrowding, erratic service, accidents, and open cars even in winter."

Angry passengers avenged themselves in March 1911 by voting for a City bond issue to acquire a failing street railway between Seattle and Renton (see the discussion of interurbans). Funds were later rebudgeted to build a new "Division A" line linking downtown with Lake Union and the southern shore of Salmon Bay. Seattle's first municipally owned transit route entered service in March 1914.

Undeterred, Stone and Webster strengthened its grip on the region by acquiring similar firms in Tacoma and Everett and those cities' interurban links to Seattle. S&W reorganized Seattle Electric in 1912 as the Puget Sound Traction, Power and Light Company (PSTP&L, the grand daddy of today's Puget Power).

Advocates of "Municipal Ownership" were equally active, and their movement reached a high-water mark in September 1911 when King County voters created the original Port Commission, forerunner of today's Port of Seattle. By then, even the Chamber of Commerce had lost patience with the transcontinental railways which dominated the waterfront and had sought to scuttle such public improvements as Harbor Island and the dredging of the Duwamish waterways.

Seattle's first "Rapid Transit" Plan

City planning in Seattle got off to a bad start in 1853, when Arthur Denny and Doc

Maynard sat down to plat their holdings which met at Skid Road. Denny, a Republican and teetotaler, wanted the new town's streets to follow the contour of Elliott Bay's shore; Maynard, a Democrat and tippler, wanted them laid precisely north and south, east and west. They couldn't agree, which is why the streets north and south of Yesler Way still don't agree either.

By the dawn of the 20th century, speculative development had created a crazy quilt of land uses served by an equally haphazard tangle of private streetcar lines. This confusion irked Reginald H. Thomson, Seattle's visionary City Engineer from 1892 to 1911. He later told his biographer, "To open and keep open lines of easy communication between the center of the city and these territories became a ruling passion for me."

Thomson had arrived in Seattle in 1879 and soon devoted his main energies to securing Seattle access to watersheds, to leveling the steep hills and ridges that ringed Elliott Bay, and using the graded soil to expand its central waterfront. He knew that to maintain public support for these expensive and inconvenient projects (and there were many critics, including Alden Blethen, thundering editor of *The Seattle Times*) voters needed a sense of the great new city that would rise out of the ditches and craters his workers were inflicting on the populace.

So, Thomson and civic reformers of the new Municipal League sought an election to create a "Municipal Plans Commission" to write Seattle's first comprehensive plan. Voters approved the measure in 1910, and the Commissioners entrusted preparation of the plan to Virgil Bogue, a protege of the famed Olmsted Brothers who had planned the city's park system in 1903 and 1908.

As a product of the "City Beautiful" movement, Bogue preferred the broad avenues and relatively modest buildings of Paris to the brash skyscrapers and clogged byways of New York City. R.H. Thomson's regrade of Denny Hill created for him a blank canvas on which to paint a Beaux Arts portrait of the "Civic Ideal."

Bogue's final plan was nothing if not audacious. He proposed a brand new downtown complex at the present intersection of Fourth Avenue and Blanchard, reconstruction of the central waterfront, a giant train station at the south end of Lake Union, acquisition of Mercer Island for a park, and digging a "rapid transit" tunnel under Lake Washington and Capitol Hill between Yarrow Bay and the present-day Seattle Center. In all, Bogue outlined a total "Rapid Transit System" with nearly 91 miles of new elevated, subway and surface track (excluding new street railways and interurban rail). Through great vision, or the lack of same, the word "automobile" never appears

in his plan.

The proposal sent shudders through the conservative business establishment, which feared that a new city center would devalue holdings in the existing downtown. Bogue also alarmed some reformers who thought his plan would stymie the work of the new Port Commission. In the end, the plan's potential cost -- tens of billions in today's dollars -- led voters to reject the Bogue Plan by nearly two to one on March 5, 1912.

Seattle voters retained their enthusiasm for municipal ownership, however, and in 1913 they approved a bond issue for the City's second street railway, the "Division C" line to Burien. PSTP&L retained the franchise for the rest of Seattle's rail transit, and it continued to develop its hydroelectric and interurban rail systems.

The Canals of Seattle

Another major planning debate focused on where to dig a canal to link Puget Sound and Lake Washington. Water remained the most convenient medium for transporting freight, so the location of such a passage carried enormous economic import.

Former territorial governor Eugene Semple preferred a southern route slicing through Beacon Hill and opening to the bay via the Duwamish tide flats, which were to be filled in to house new industry. His plan called for dredging the mouth of the river to form two waterways with an artificial "Harbor Island" in between.

Semple began work in 1896, but his plans alarmed James Hill and waterfront interests. They feared that the new island would devalue their existing investments, and many had already placed their bets on a northern canal linking Salmon Bay, Lake Union and Union Bay. Through years of legal and economic maneuvering, they frustrated Semple's canal, although he managed to finish his new island. This controversy provided much of the impetus for creation of the Port of Seattle Commission.

Hiram Chittenden, chief of the local U.S. Corps of Engineers district, started construction of the north canal in 1911. This route also had its enemies, including Ballard mill owners and land owners along the Duwamish. It was simply impossible to propose any change in Seattle land use which did not gore somebody's economic ox.

Nevertheless, everyone cheered when the canal opened on July 4, 1917. They had good cause since the federal government had paid nearly two thirds of the canal's $9 million cost. This marked the first significant federal contribution to a civic improvement in Seattle.

Seattle Buys a Street Railway -- And More Than It Bargained For

In 1918, the City constructed a third municipal railway to serve the waterfront and link its two earlier lines. Division A was extended into Ballard through the acquisition of the Loyal Railway Company. Despite the booming economy and 60,000 new citizens generated by World War I, the City lost money on its street railways. It was not alone.

The Seattle Electric Company could no longer cover expenses, let alone turn a profit, with the nickel fares mandated by the 1899-vintage City franchise. It also faced new competition from motorized jitneys which would race ahead of the trolleys and scoop up waiting riders at even lower fares.

The company had also endured an acrimonious strike between July 17 and August 1, 1916, provoked by the dismissal of two workers for joining Local 587 of the Amalgamated Association of Street and Electric Railway Workers (now the Amalgamated Transit Union). When the entire 1,500-person work force walked off the job in sympathy, the line hired non-union scabs. They were greeted by angry workers who demolished two streetcars during a riot in Pionner Square.

The issue was settled in arbitration under pressure from the federal government. Transit workers, who then earned a lordly 29 cents an hour and put in 16 hour days, six days a week, gained no additional compensation but the company was blocked from retaliating against union members. One by-product of the settlement was a ban on jitneys along Seattle Electric routes during the war-time "emergency."

But there was no relief from another form of competition. Private automobiles, now affordable thanks to Henry Ford's Model-T, began to carry away the street railway's formerly captive market. Seattle Electric fell $400,000 behind in its City taxes and defaulted on fees for use of the new Fremont Bridge. At this point, the Company approached the City of Seattle about leasing its lines. Mayor Ole Hanson responded with an intemperate bid to purchase them for $15 million.

Stone & Webster accepted the offer with unseemly haste, since a more accurate valuation of its street railway assets would not exceed $6 million. Nevertheless, the City Council approved the tender, which it planned to pay from general taxes if operating revenues fell short. This proposition was submitted to an advisory vote of the people on November 5, 1918. A large majority of those voters not bedridden during Seattle's lethal influenza epidemic went along with the sale.

Although municipal ownership advocates generally supported the purchase, suspicions lingered for many years that a cabal of City and Company officials had conspired to overcharge the taxpayers. Even the federal Emergency Fleet Corporation was implicated by a Grand Jury for having pressured Seattle to buy the railways. (The agency's ostensible purpose was to maintain worker access to wartime shipyards, but its local director turned out to be an S&W investor). The Hanson administration was rapped for "slack business methods" in making such a high bid, but no charges were ever brought.

The timing of the sale also bothered many observers. Seattle had just finessed Stone and Webster out its Forest Service license for hydro-electric development on the Skagit River. When it secured these rights in 1918, City Light gained the upper hand in challenging PSTP&L as Western Washington's dominant electric utility. Notwithstanding the railway's inflated price, why would Stone & Webster want to encourage municipal utility ownership? It didn't take long for the answer to become clear.

Meanwhile, On the Interurban

Seattle's first interurban railway was launched in 1889 by the same Fred Sander who had introduced cable cars to Seattle. He began building a narrow-gauge line, called the Grant Street Electric Railway, from Seattle to Tacoma. He got as far as the then independent city of Georgetown in 1893, but no farther.

J.K. Edmiston had worse luck. He began work on his Rainier Valley Electric Railway also in 1889 and installed Seattle's first counterbalance to carry trains up Washington Street from Pioneer Square. Electricity then propelled them south into Rainier Valley, which spurred settlement of the then largely uninhabited area and gave its farmers a freight service to city markets. Their business was not enough to save the line from receivership in 1890.

It should be noted that before the arrival of motor trucks, freight hauling and package delivery was a major activity of all interurbans and street railways. Heavy freight service was usually provided at night, before and after the commuter rush hours. Independent "truck farmers" were important customers for the region's interurbans, in particular.

The Rainier Valley's new management, headed by W.J. Gramb, bucked the Panic of '93 and extended the line in stages to Columbia City and Rainier Beach, which bankrupted the railway anew. Frank Osgood ultimately took it over and pushed on to Renton in 1896. He ambitiously renamed the line the "Seattle, Renton and Southern Railway."

Osgood sold the line to W.R. Crawford in 1907 amid another recession. Diffident management and system stress caused by hauling too much freight, resulted in metropolitan Seattle's worst trolley accident yet on April 30, 1910, in which two people died near Columbia City. The company compounded its woes when it tried to introduce fare zones (divided by Seattle's city limits, like Metro's current zones) the following year. A passenger riot compelled it to drop the scheme.

On March 7, 1911, Seattle voters approved bonds to purchase the line for $800,000, but Renton citizens protested and the owners raised their price to $1.2 million. The City rejected the offer and diverted the bonds to build its "Division A" line. Crawford filed for bankruptcy the next year.

On April 8, 1912, the Rainier Valley line's workers organized Local 587 of what is now the Amalgamated Transit Union, and became the first in the region to win collective bargaining rights. Seattle's voters rejected a new purchase plan for the Rainier route in 1913 and again in 1928. The line, renamed less grandiosely the Seattle & Rainier Valley Railway, managed to survive until January 1, 1937.

A more successful southern route was initiated by Henry Bucey's Seattle-Tacoma Interurban Railway in 1901 (although interurban historian Warren Wing credits Fred Sander with building this line's first six miles). The railway's route began at the Interurban Building, which still stands at the corner of Occidental and Yesler, ran down First to Georgetown, east on Marginal, followed the Duwamish and former White River (since diverted into the Puyallup River) southeast to Kent and Auburn, turned southwest to Milton, and finally headed due west into

Tacoma.

The Boston investment house of Kidder, Peabody & Company bought out Bucey's franchise and then sold it to Stone & Webster, which renamed the line the Puget Sound Electric Railway. The railway was completed to Tacoma (where S&W ran the local street railway) in 1902. Branches were later added to Renton and Puyallup. Tacoma Railway and Power lines extended service as far south as Steilacoom, Spanaway and American Lake. Service began on September 25, 1902, with fares of 60 cents one-way and a dollar roundtrip.

The Puget Sound Electric Railway offered hourly service between Seattle and Tacoma, and its elegant "parlor cars" could cover the distance in 75 minutes. Nighttime freight service consisted largely of agricultural produce, earning one Tacoma shuttle the nickname "Spud Local."

Fred Sander's experience with the Grant Street Electric Railway between Seattle and Georgetown did not stop him from looking north beyond Seattle's city limits, where he happened to own considerable real estate. Sander began work in 1901, pushing his line slowly north from Ballard, which remained an independent city until Seattle annexed it in 1907 (along with West Seattle and much of south Seattle). That same year, Sander's Seattle-Everett Interurban Railway reached Hall's Lake, 12 miles to the north.

By then Stone & Webster had developed a great interest in Sander's enterprise. They bought the company out from under him and reincorporated it as the Seattle-Everett Traction Company. The company reached Everett, where it took control of the local transit system, in 1910. At the opposite end of the line, S&W moved its terminus from Ballard to downtown Seattle. Interurban cars traversed Greenwood, Phinney, and Fremont Avenues, crossed a fixed bridge at Stone Way (replaced by the city-owned Fremont Bridge when the Ship Canal opened in 1917), and rumbled down Westlake Avenue to the Shirley Hotel at Fifth & Pine.

Also in 1910, S&W's Bellingham and Skagit Railway launched construction south to Mount Vernon. This entailed elaborate trestles along Chuckanut Creek and Samish Bay and across the Skagit River. The line was not finished until August 1912 at great cost. This expense led S&W to reorganize its two northern interurbans under a new company, Pacific Northwest Traction.

The Seattle-Everett line and its spur to Snohomish were dubbed the "Southern Division"

and the Mount Vernon-Bellingham route and its Sedro Woolley spur became the "Northern Division." The dream of spanning the 30 miles between the two divisions was never realized as the threat of world war began to drain away Eastern capital to more lucrative munitions investments.

Despite this gap, S&W's interurbans became a mainstay of regional transportation. Their plush Niles cars and muscular St. Louis cars dominated city streets from Tacoma to Bellingham. Outside congested areas, these "Green Monsters" reached speeds of 50 miles per hour as they roared past the first cars and trucks rattling along country roads paralleling their tracks.

The new federal Highway 99 provided an indirect link between Everett and Mount Vernon as construction inched north. Pacific Northwest Traction began offering a shuttle "motor stage" service between its Southern and Northern Divisions. When 99 reached Bellingham in 1920, S&W realized that it faced both a new competitor and a new opportunity. No one could quite read it yet, but the writing was on the wall for interurban rail.

Wheels in Wheels -- The Battle for the Street Railway and City Light

The City of Seattle took charge of PSTP&L's street railway assets on March 30, 1919. These included 195 miles of electrified rail, 8.6 miles of cable railway, 540 streetcars of varying type, and roughly 1,500 employees.

The Seattle Municipal Street Railway began operation the following day, April 1st. The date was a bad omen, and the City soon found itself coping with labor unrest (a bitter General Strike, the nation's first, had just taken place in February), dwindling revenues, and mounting costs to maintain and upgrade obsolete equipment. At least the City was able to deal with the intensifying competition from jitneys, which returned in force after the war: it regulated them out of existence by 1921.

The City proved to be an efficient manager. It even earned private praise from Alton Leonard, general manager of Puget Sound Power & Light (the "Traction" was dropped from the company's name after the Seattle sale, although it still controlled the interurbans and several local street railways). Leonard wrote his Stone & Webster superiors in May 1922 and reported that the City "has done exceedingly well" in racking up a $400,000 revenue increase despite the loss of 14 million annual fares, chiefly to the automobiles.

"The trouble with the carlines is that they have no friends, no voice with which to reach the public," Leonard's memo continued. "The mayor has been a critic; the council have been destructive rather than constructive; the newspapers have been critical rather than helpful, and [the citizens] do not understand the problem" faced by the railway. He closed by predicting that the railway would become the "waif of municipal politics." What he didn't say was that this was just fine with PSP&L.

By then, the City's prospects for making its street railway solvent had already dimmed. S.B. Asia and "Fourteen Taxpayers" sued in 1921 to prevent use of the City's general fund to pay off railway debts. Although rejected by the Superior Court, the Asia suit was upheld by the State Supreme Court on April 29, 1922. The Court's ruling was so sweeping that it effectively blocked any government subsidy for public transit until the State Legislature passed a corrective statute in 1965.

The railway's problem was the bond debt created by the purchase -- interest payments of $833,000 per annum. Farebox income was too little to cover this debt and operating costs, let alone finance new capital investment. The City resorted to "warrants" (IOUs) to pay system employees, postponed needed improvements, and shuffled interdepartmental loans to meet bond interest payments.

Although the Asia suit jeopardized its ever receiving payment from Seattle and prevented resale of its bonds, Stone & Webster exploited the situation for leverage in a larger power play to take over City Light. As the railway's financial crisis deepened, PSP&L offered to take the system back or refinance the railway bonds if City Light agreed to supply power to the lines at a loss. The point of this gambit was to box the City into entertaining an offer it could not refuse: Puget Sound's forgiveness of the railway debt in exchange for taking over City Light.

At least this was the interpretation of James D. Ross, City Light's farsighted but autocratic superintendent from 1911 until 1935. His view was shared by most of Seattle's political leadership, including Bertha K. Landes, the city's first woman mayor. Landes, Ross and their allies were able to keep the railways running, but it was a daily struggle. Voters remained confident enough to approve a 1928 bond issue to raise $1.5 million for new cars and line improvements, but they dumped Landes for Frank Edwards, who hinted he had a solution to the railway mess.

He didn't, and the city began defaulting on bond interest. PSP&L finally negotiated a moratorium on Seattle's debt payments in 1930. Was it a coincidence that Edwards fired J.D. Ross soon after? Outraged voters thought so and promptly recalled Edwards from office. His successor, John Dore, then rehired Ross, who ran City Light until late 1935 when President Roosevelt appointed him to the Securities and Exchange Commission.

The system was still losing money. The City Council had tried to reform management by installing a new Transit Commission and abolising the City's Utilities Department. Voters thwarted the plan in 1932 when they rejected the Commission but approved elimination of the Utilities Department. This left the system in bureaucratic limbo until the City created a new transit superintendent position, occupied by Albert E. Pierce.

Stone & Webster was having its own problems, and its control of Northwest utilities and transportation suffered two decisive political defeats in the 1930s. First, Washington voters tilted the playing field in favor of public utilities when they passed the Grange Public Power Initiative in 1930. Five years later, Congress enacted the Utility Holding Company Act which forced Stone & Webster to dissolve its network of utilities and sell off local companies. As a result, Puget Sound Power & Light was reorganized under a new "home rule" board.

By 1936, Seattle felt bold enough to turn the tables on PSP&L and offer to settle the railway debt if the company sold its Seattle properties to City Light. In truth, the worsening Depression had given both sides extra impetus to resolve their dispute. Street railway annual revenue had plummeted to a nadir of less than $4 million in 1933. Puget Power was struggling to refinance itself in the middle of the Depression. It now welcomed City attempts to float new bonds for the railway debt.

Seattle's efforts to attract investors for new railway bonds were muddied by pressure from General Motors on Seattle to sell off the system to a private company that would buy buses -- made by General Motors, of course. The City had introduced buses on feeder routes as early as 1919 and it began substituting them for streetcars on selected main routes in 1936.

In that year, the City operated 410 streetcars on 26 routes and three cable lines totaling 231 miles of track, while 60 gasoline buses served 18 routes. Annual operating costs were nearly $4 million, and the system earned an average of $11,000 in daily fares. By 1936, Seattle also had

paid out $6.7 million against the principal of the original S&W bonds and another $9.2 million in interest.

From Streetcars to Trackless Trolleys

The City retained the respected engineers of the John C. Beeler Organization to map a new transit plan. The City Council rejected an initial proposal for a rail-bus system. Beeler submitted a revised plan which replaced all railways with with 240 new "trackless trolleys" and 135 gasoline buses.

The costs of new trackless trolley/motor bus plan and an agreed settlement of the Stone & Webster bonds totalled $11.6 million, less than Seattle had paid for the street railway back in 1918. But the idea of abandoning street rail after so long a struggle did not sit well with many, including nearly 1,000 members of the Amalgamated Transit Union (ATU). Many neighborhoods also feared the loss of service if their accustomed streetcars were scrapped.

There were also doubts about the new electric coaches, which had been first introduced in Salt Lake City in 1928. Portland had used trackless trolleys since 1934, and while their curb-side service was popular, the vehicles had trouble negotiating rain-slicked hills. Rail advocates seized on this deficiency. Transit workers and community clubs favored acquisition of new "PCC" streetcars, a model design developed by a national Electric Railways Presidents' Conference Committee in 1936. The case for rail was not advanced when a West Seattle streetcar jumped its tracks on January 8, 1937, and plunged off Avalon Way into a ravine. Three passengers died and 59 sustained injuries.

It was Seattle's worst streetcar accident, but not its last. Fenderbenders between streetcars and automobiles had become daily occurences on Seattle streets, which were crowded with nearly 100,000 private cars and trucks. The collisions posed a major liability headache for the city as well as a hazard for drivers and pedestrians, and they gave anti-streetcar forces one of their most potent arguments.

Beeler Plan boosters brought two trackless trolleys to Seattle for a demonstration. They staged a dash up the Queen Anne Counterbalance between a streetcar and its trackless rival, which won hands down. Mayor Dore was unmoved by such evidence. He allied himself with the ATU, which had offered to contribute $300,000 towards new bonds for the purchase of new streetcars.

It should be noted that transit workers ranked second only to Stone & Webster as street railway creditors thanks to their acceptance of warrants in place of paychecks.

The system had accumulated an operating deficit of $4 million when the Beeler Plan was put before the voters as "Proposition A" on March 9, 1937. Depression-racked taxpayers rejected it by 53,000 votes to 39,000. This result may have been dictated by the $11 million-plus price tag, but it also showed that the streetcars still enjoyed public support, despite their rapid deterioration due to deferred maintenance.

Unfortunately, Seattle could not take votes to the bank. The defeat of Proposition A left the system stuck in financial reverse gear with annual losses of $50,000. Despite ATU's pledge, the City could not find a broker willing to underwrite new bonds for modernizing the street railway. Some observers, such as rail buff Morris Pixley, suspected the unseen hand of General Motors and other automobile interests in these events, but could not uncover any direct evidence.

The system continued to fall apart, both physically and fiscally. Mayor Dore was compelled to "confiscate" revenues to pay system employees directly with dimes and nickels out of the fare boxes. When he died on April 18, 1938, it fell to a new Republican mayor, Arthur Langlie, and the Democrat's New Deal to fix the problem.

After taking office, Langlie immediately began negotiating with the federal Reconstruction Finance Corporation for a loan to pay off the bonds. In May 1939, the RFC approved $10 million. The City bought out the bonds for less than 40 cents on the dollar (paying $3,320,000 million to redeem the $8,336,000 principal, plus deferred interest) and spent the balance to finance a conversion from rail to trackless trolleys and gas-powered buses.

At the same time, the State Legislature made an effort to depoliticize Seattle's transit system by mandating an independent Transportation Commission, appointed by the mayor and City Council, to run it. The first Commissioners were seated in August 1939: Evro Becket, William Paddock, and Donald H. Yates, who served as the first chairman. Lloyd P. Graber became its secretary and the Commission named Marmion D. Mills as the first general manager of the new Seattle Transit System.

This did not prevent fierce competition and corresponding politicking between companies vying for Seattle's lucrative trackless trolley contract (at $12,000 per vehicle). Solomon-like, the

Commission split the vehicle contract. It ordered 135 "Twin Coaches" with Westinghouse motors from Ohio and 100 "Brill-PCF" coaches with General Electric compound motors, which were assembled by PACCAR in Seattle. The system also ordered 102 gasoline buses. All were painted in the System's new livery of creamy white with swashes of light and dark green.

As the new coaches came rolling out, City crews raced to string 402 miles of double wire to power them. The Commission hired or retrained 962 operators to serve some 225,000 passengers making more than 50 million trips annually on transit.

The conversion began in 1940 as rail cars were replaced by trackless trolleys route by route. The cable cars met the same fate one by one: James Street halted on February 18, Madison Street on April 13, Yesler on August 9. Trolley service on the Queen Anne Counterbalance ended the next day.

As street rail lines were taken over by new trolleys or buses, the streetcars were run directly to the nearest steel mill after dropping their last passengers. The motorman dipped his poles and the car was pushed into the mill to be dismantled and fed into the scrap ovens.

By the end of 1940, Mills was able to boast that Seattle had made an "almost complete changeover from rail to rubber." In the process, Seattle became the nation's first city to rely almost entirely on trackless trolley for its public transportation.

In the early morning darkness of April 13, 1941, the last streetcar completed its 8th Avenue NW route and retired to the Fremont barn. Morris Pixley was one of the passengers on that final run, and more than 50 years later, he cannot shake the suspicion that Seattle's streetcars had been "sold down the river" in a conspiracy with bus and automobile manufacturers. Pixley notes with bitter irony that the same City government which had pled poverty in maintaining the rails had no trouble finding the money to tear them up and pave over their beds. Except for a few isolated stretches, all traces of Seattle's street railways had been erased by 1943.

For its part, the contemporary press reported few tears shed for the passing of street rail (nostalgia requires a dimming of memory) and editorials celebrated the new age of public transportation. It was a tragicomic denouement. By the time the long struggle for control of public transit was resolved, the two main protagonists were gone: Stone & Webster had lost its war with public regulators and J.D. Ross had died in March 1939. And after scrimping for more than a

generation to secure clear title to its own street railway system, Seattle promptly dismantled it.

The End of the Interurbans

Stone & Webster's first experiment with the new "motor stage" (the term is preferred over "bus" for interurban service between terminals) failed in 1915, when it introduced a short-lived shuttle from Seattle to Edmonds. It's stage service to Bothell proved more popular and survived into the 1940s. With the completion of Highway 99 as far as Bellingham in 1921, S&W organized the Interurban Motor Company to shuttle riders between the Everett and Mount Vernon interurban stations on board 14-passenger "deluxe limousines." The following year it introduced direct stage service between Seattle and Bellingham, effectively competing with its own trains.

This pattern was repeated between Seattle and Tacoma, and the Puget Sound Electric interurban may be listed as an early traffic fatality. S&W organized North Coast Lines in 1927 with stages running between Seattle and points south. The system's success, combined with competition from private autos and trucks, led Stone & Webster to pull the plug on the Puget Sound Electric interurban in 1928.

Stone & Webster maintained its commitment to Pacific Northwest Traction's interurban a little longer, but it hedged its bets. It built a new downtown Seattle terminal at 8th and Stewart (now the Greyhound depot) in 1927. That same year, it introduced direct stage service from Seattle to Vancouver, B.C., aboard its custom-built "Parlor Observation Coaches." These innovative vehicles, built in Everett, anticipated Greyhound's "Scenicruisers" by a quarter of a century. The success of the new stages and the rapid deterioration of the Northern Division's tracks led Stone and Webster to end passenger service on the Mount Vernon-Bellingham interurban in 1928; freight service was discontinued two years later.

In 1931, Stone & Webster reorganized its stage services and the Southern Division interurban as the North Coast Transportation Company. Meanwhile, the government closed the last gap in Highway 99 with completion of the George Washington Memorial (Aurora) Bridge in 1932. This gave the new North Coast Lines a convenient bus thoroughfare from Portland to British Columbia, and put it in a position to compete with passenger trains. The interurban rail cars were dressed up in a new livery of cream, Boston Gray and red in 1934, but they had nowhere to go.